

## General Room Ventilation Information

As with any indoor environment, nail salons should provide general dilution ventilation with an adequate supply of outside air. However, if a local exhaust system is not in place, it is especially important to have a good room ventilation system. The minimum recommended amount of outside air is 25 cubic feet per minute (cfm) per occupant. This should be considered the minimum amount, and significantly more air flow may be required to reduce chemical vapors and avoid complaints from occupants.

In order to assure that the HVAC is supplying an adequate amount of outside air, a qualified HVAC or engineering firm should directly measure the flow of outside air into the salon. However, as an initial screening, the owner may first want to measure the concentration of carbon dioxide, which is an indirect indicator of the supply of outside air. In this case it is important to have at least as many people in the salon, at the time of the measurement, as the maximum number expected in the salon during normal operation. (Such a condition is required since the room occupants are the primary source of carbon dioxide.) As a rough indicator, 700 ppm of carbon dioxide corresponds to about 25 cfm of outside air person person.

To avoid spreading chemical vapors to neighboring businesses, nail salons should not share the same ventilation system with another business and should be under negative air pressure in relation to adjacent spaces. To maintain negative pressure, the salon should exhaust slightly more air than is supplied so that any leakage of vapors will not enter adjacent businesses.

In addition, walls separating the salon from other businesses should have no holes, gaps or cracks.

## Massachusetts State Building Code

The state building code requires all buildings to have either natural or mechanical ventilation. Naturally ventilated spaces must have windows whose portion that can be opened equals at least 4% of the floor space. If there is mechanical ventilation, it must meet the requirements of the code that was in effect at the time that the building was constructed or renovated. However, if the building code inspector determines that there is a significant health hazard, he/she may require appropriate building modification. The latest version of the code (1997) calls for 25 cfm of outside air per occupant in beauty salons. The code is enforced by the local building department.

All ventilation plans must be certified by a HVAC engineer.